Version with Markings to Show Changes Made

In the Claims

Please substitute the following amended claims for those in the application as filed. A version to show changes made is enclosed.

1. (Amended) A method for identifying a compound that is an agonist of intracellular signaling effected by GPI-anchored receptors in nervous system cells comprising (i) incubating said nervous system cells having GPI-anchored receptors with a test compound and (ii) determining whether intracellular signaling has been effected in said cells, thereby identifying a compound that is an agonist of intracellular signaling effected by said GPI-anchored receptors.

16. (Amended) A method for identifying a compound that is an antagonist of intracellular signaling effected by GPI-anchored receptors in nervous system cells comprising (i) incubating said nervous system cells having GPI-anchored receptors with a test compound in the presence of a sufficient amount of an agonist of said intracellular signaling to effect intracellular signaling, and (iii) comparing the results to controls not incubated with said compound, thereby identifying a compound that is an antagonist of intracellular signaling effected by GPI-anchored receptors.

30. (Amended) A method for identifying a compound that is an agonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells that express GFRα1 receptor, but not Ret receptor, with a test compound and (ii) determining whether intracellular signaling has

been effected in said cells, thereby identifying a compound that is an agonist of GFRα1-dependent, Ret-independent intracellular signaling.

39. (Amended) A method for identifying a compound that is an antagonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells that express GFRα1 receptor, but not Ret receptor, with a test compound in the presence of a sufficient amount of an agonist of said intracellular signaling to effect intracellular signaling, and (iii) comparing the results to controls not incubated with said compound, thereby identifying a compound that is an antagonist of GFRα1-dependent, Ret-independent intracellular signaling.

49. (Amended) A method for identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells which express GFRα1 receptor, but not Ret receptor, with a test compound (ii) determining whether an increase in intracellular Ca^{2+} concentration is effected in said cells as compared to controls not incubated with said compound, thereby identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling.

54. (Amended) A method for identifying a compound which is an antagonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells which express GFRα1 receptors, but not Ret receptors, with a compound to be tested in the presence of a sufficient amount of an agonist of GFRα1-dependent, Ret-independent intracellular signaling to cause an increase in intracellular Ca^{2+} concentration, and (ii) determining whether a decrease in intracellular Ca^{2+} concentration is effected, as compared with controls performed without said compound to be

tested, thereby identifying a compound which is an antagonist of GFRα1-dependent, Ret-independent intracellular signaling.

59. (Amended) A method for identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells which express GFRα1, but not Ret, with the compound to be tested, (ii) preparing a cell lysate, (iii) immunoprecipitating the detergent insoluble fraction of the cell lysate with anti-GFRα1 antibodies to form an immunoprecipitate, and (iv) performing an assay for measuring kinase phosphorylation on said immunoprecipitate, thereby identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling.

63. (Amended) A method for identifying a compound which is an antagonist of the GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells which express GFRα1, but not Ret, with the compound to be tested in the presence of a sufficient amount of an agonist of said intracellular signaling to effect kinase phosphorylation ii) preparing a cell lysate, (iii) immunoprecipitating the detergent insoluble fraction of the cell lysate with anti-GFRα1 antibodies to form an immunoprecipitate, (iv) performing an assay for measuring kinase phosphorylation on said immunoprecipitate, and (v) comparing the results of said assay to those achieved in control experiments performed in the absence of said compound to be tested, thereby identifying a compound which is an antagonist of the GFRα1-dependent, Ret-independent intracellular signaling.

68. (Amended) A method for identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling comprising (i) incubating cells which express GFRα1, but not Ret, with a compound to be tested, and (ii) determining whether activation of Src-type kinase is effected, as compared with controls not incubated with said compound, thereby identifying a compound which is an agonist of GFRα1-dependent, Ret-independent intracellular signaling.

75. (Amended) A method for identifying a compound which is an antagonist of the GFRα1-dependent, Ret-independent intracellular signaling pathway comprising (i) incubating cells which express GFRα1, but not Ret, with a compound to be tested in the presence of a sufficient amount of an agonist of said pathway to cause activation of Src-type kinase and (ii) determining whether said compound effects a decrease in Src-type kinase activation, as compared with controls not incubated with said compound, thereby identifying a compound which is an antagonist of the GFRα1-dependent, Ret-independent intracellular signaling pathway.

83. (Amended) A method for identifying a compound which is an agonist of intracellular signaling effected by GFRα receptors comprising (i) incubating lipid rafts prepared from cells having GFRα receptors with said compound and (ii) determining whether Src-type kinase is activated as compared to controls not incubated with said compound, thereby identifying a compound which is an agonist of intracellular signaling effected by GFRα receptors.

87. (Amended) A method for identifying a compound which is an antagonist of intracellular signaling effected by GFRα receptors comprising (i) incubating lipid rafts prepared from cells having GFRα receptors with said compound in the presence of a sufficient amount of an agonist of the GFRα-dependent, Ret-independent intracellular signaling pathway to activate Src-type kinases and (ii) comparing the results to control experiments performed in the absence of said compound, thereby identifying a compound which is an antagonist of intracellular signaling effected by GFRα receptors.